

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method of billing for ~~mobile application services~~
a service provided to a user of a mobile device, the method comprising:
receiving a request for a mobile application operation;
determining if the application operation is billable;
identifying a subscriber account to be billed, if the operation is billable;
notifying an external billing module to start a billing event;
performing the requested mobile application operation; and
notifying the external billing module to end billing event.
monitoring messages being exchanged between an application and the user;
identifying a billable event in the monitored messages;
in response to identifying the billable event, communicating with an external
billing module to rate the event and authorize billing for the event, wherein the authorization
further comprises determining if the user has sufficient funds for the cost of the event.
2. (Currently amended) The method of claim 1 further comprising:
receiving authorization confirmation from the external billing module to ~~execute~~
the billable operation that the user has sufficient funds for the cost of the event.
3. (Currently amended) The method of claim 1 further comprising:
receiving a billing rate for the event from the external billing module, the billing
rate based upon the communication with the external billing module.
4. (Currently amended) The method of claim 1 further comprising:
receiving advice of charge information from the external billing module, and
providing the advice of charge information to the user for approval to proceed with the event.

5. (Currently amended) The method of claim 1, wherein the subscriber account is user has a prepaid account, the method further comprising:

the external billing module reserving an amount from the subscriber user's account for the operation event; [[and]]

the external billing module debiting ~~the reserve~~ an actual charge amount from the subscriber user's account upon completion[[s]] of the ~~mobile application operation event~~; and releasing any residual of the reserved amount, the residual being the difference between the reserved amount and the actual charge amount.

6. (Currently amended) The method of claim 1, wherein the subscriber account is user has a postpaid account, the method further comprising:

the external billing module reserving an amount from the subscriber user's account for the operation event; [[and]]

the external billing module debiting ~~the reserve~~ an actual charge amount from the subscriber user's account upon completion[[s]] of the ~~mobile application operation event~~; and releasing any residual of the reserved amount, the residual being the difference between the reserved amount and the actual charge amount.

7. (Currently amended) The method of claim [[1]] 3, wherein the subscriber account is user has a prepaid account, the method further comprising:

the billing module determining if the subscriber's prepaid account has sufficient funds to cover a billing rate for the mobile application operation:

receiving an account balance for the user's account;

determining an internally-estimated cost for the event using the billing rate and an internal rating engine; and

confirming that the user's account balance exceeds the internally-estimated cost.

8. (Currently amended) The method of claim [[1]] 3, wherein the subscriber account is user has a postpaid account, the method further comprising:

~~the billing module determining if the subscriber's postpaid account has sufficient funds to cover a billing rate for the mobile application operation;~~

~~determining an internally-estimated cost for the event using the billing rate and an internal rating engine; and~~

~~confirming that the user has sufficient funds for the cost of the event.~~

9. (Currently amended) The method of claim 1, wherein the subscriber account is user has a prepaid account, the method further comprising:

~~the billing module logging a completed mobile application operation information for a completed event~~ in a charge detail record; and

later processing the charge detail record to bill the subscriber user's account for the operation completed event.

10. (Currently amended) The method of claim 1, wherein the subscriber account is user has a postpaid account, the method further comprising:

~~the billing module logging a completed mobile application operation information for a completed event~~ in a charge detail record; and

later processing the charge detail record to bill the subscriber user's account for the operation completed event.

11. (Currently amended) The method of claim 1, wherein the subscriber account is user has a prepaid account, the method further comprising:

~~the billing module authorizing the mobile application operation event;~~

~~the billing module receiving a message that the mobile application operation event~~ was not completed;

~~the billing module logging information about the mobile application operation event~~, including error status, in a charge detail record; and

~~the billing module processing the charge detail record offline to credit the subscriber~~ user's account for the mobile application operation event.

12. (Currently amended) The method of claim 1, wherein the subscriber account is user has a postpaid account, the method further comprising:

~~the billing module authorizing the mobile application operation event;~~

~~the billing module receiving a message that the mobile application operation event~~ was not completed;

~~the billing module logging information about the mobile application operation event,~~ including error status, in a charge detail record; and

~~the billing module processing the charge detail record offline to credit the subscriber user's account for the mobile application operation event.~~

13. (Currently amended) The method of claim 1 wherein the billable operations events are selected from the ~~operations in~~ group consisting of:

message submission;

message forward;

message notification;

message retrieval;

message delivery;

delivery report submission; and

delivery report notification.

14. (Currently amended) A billing extension module coupled to a carrier's application to support billing operations, the billing extension module operable to perform billing services at the beginning of a billing event or at the end of a billing event or both, wherein the billing services include the services selected from the group consisting of:

communicating with an external billing module to rate the event and authorize billing for the event, wherein the authorization further comprises determining if an account has sufficient funds for the cost of the event;

logging charge detail records;

determining the cost of a billable operation;

checking for funds in an account;

reserving funds for an account;
debiting funds from an account; and
crediting funds to an account.

15. (Currently amended) A system for providing mobile messaging billing services comprising:

a mobile application server;
a billing extension module application coupled to the mobile application server;
one or more remote billing servers; and
a real-time client billing library operable to provide communications between the billing extension module and the remote billing server, the communications comprising requested mobile application operation information for use by a remote billing server to estimate a cost for a requested mobile application service.

16. (Currently amended) The system of claim 15 further comprising:
a charging data record store comprising mobile application service event data.

17. (Original) The system of claim 15 further comprising:
a remote rating engine.

18. (Original) The system of claim 15 further comprising:
a local rating engine.

19. (Currently amended) A method for providing billing services to mobile applications that ~~[[to]]do~~ not have embedded billing logic, the method comprising:
receiving a user request for a mobile application service;
communicating with an external billing module to rate the requested service and authorize billing for the requested service, wherein the authorization further comprises determining if an account has sufficient funds for the cost of the requested service;
notifying the separate billing application of a start of the requested service; and
notifying the separate billing application of an end of the requested service.

20. (Original) The method of claim 19 further comprising:
receiving, from the separate billing application, advice of charge information for
the requested service.
21. (Original) The method of claim 20 further comprising:
providing advice of charge information to a user for approval to proceed with
requested service.
22. (Original) The method of claim 19 further comprising:
receiving, from the separate billing application, authorization to perform the
requested service.
23. (Original) The method of claim 19 further comprising:
creating a charge record for the requested service at the separate billing
application; and
processing the charge record to bill a user's account for the requested service.
24. (Original) The method of claim 19 further comprising:
rating the requested service at the separate billing application.
25. (Currently amended) A method for providing billing services for mobile
applications comprising:
creating billing records from billing-related information that is collected from
mobile messages, the information for use by an external billing server to determine a cost for the
mobile message;
sending the billing records to a billing application that is coupled to the messaging
application;
converting billing record data into data structures;
converting the data structures into requests for the billing server;
sending the requests to the billing server; and
receiving responses to the requests from the billing server.

26. (Original) The method of claim 25 wherein the creating step is performed by a mobile messaging relay.

27. (Original) The method of claim 25 wherein the requests for the billing server are SOAP-formatted requests that can be sent over HTTP.

28. (Original) The method of claim 25 wherein the requests for the billing server are rate generation requests.

29. (Original) The method of claim 25 further comprising:
determining if the billing records correspond to billable operations.

30. (Original) The method of claim 29 wherein the billable operations are selected from the operations in group consisting of:

message submission;
message forward;
message notification;
message retrieval;
message delivery;
delivery report submission; and
delivery report notification.

31. (Original) The method of claim 25 further comprising:
calculating an amount to be reserved from a prepaid account until an operation is successfully performed.

32. (Original) The method of claim 31 further comprising:
logging events to a charge data record when the billing server is unavailable;
performing a billable operation for a subscriber; and
billing the subscriber's a prepaid account when the billing server becomes available.